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Félix Tréguer, Dominique Trudel

► To cite this version:

Félix Tréguer, Dominique Trudel. From Internet Access Provision to Digital Rights Activism: The History of the French Data Network. *Histoire et informatique*, 2019, *Computer Networks Histories: Emerging Streams from the Internet*, 21, pp.35-48. hal-02863968v2

HAL Id: hal-02863968

<https://hal.science/hal-02863968v2>

Submitted on 18 Jun 2020

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From Internet Access Provision to Digital Rights Activism: The History of the French Data Network

Author manuscript to be published in 2019 the journal "Histoire et informatique"

Félix Tréguer (CIS-CNRS)

Dominique Trudel (Université du Québec à Chicoutimi)

Abstract

This paper chronicles the history of the French Data Network (FDN), France's first community network and first Internet access provider open to the general public, from its foundation in 1992 to the creation of the *Fédération FDN* in 2011. In the French context, state and public actors have been central in the development of early computer networks such as Cyclades, RENATER, and Minitel. While these actors have already received scholarly attention, very little consideration has been given to the political action of grassroots actors such as FDN, and to their role in the co-shaping of computer networks, their politics, and their users. To help remedy these gaps, the paper traces the evolution of FDN from early concern with Internet access and education to its more recent political commitments. In doing so, this paper simultaneously contributes to the development of a French national history of computer networks, to the ongoing diversification of the historiography of digital rights activism, as well as to future comparative research.

Bios

Félix Tréguer is an associate researcher at the CNRS Center for Internet & Society. His research looks at power struggles surrounding the Internet and more generally communication technologies, at the intersection of political history, law as well as media and technology studies. He holds a PhD in political studies from the School for Advanced Studies in the Social Sciences (EHESS).

Dominique Trudel is an assistant professor at the Université du Québec à Chicoutimi, Canada, and a former post-doctoral researcher at ISCC-CRNS Paris-Sorbonne. His research focuses on the intellectual history of communication

research and the history of media technologies. He holds a PhD in communication from the Université de Montréal, Canada.

Funding

This research is supported by the European Commission, H2020-ICT-2015 Programme, Grant Number 688768 “netCommons” (Network Infrastructure as Commons).

Based on interviews conducted with founding members and leaders of the French Data Network (FDN) (Benjamin Bayart, Laurent Chemla, Jean-Philippe Nicaise, and Christian Paulus), this paper chronicles the history of FDN, France’s first community network and first Internet access provider open to the general public. In the French context, state and public actors have been central in the development of early computer networks such as Cyclades, RENATER, and Minitel. While these actors have already received scholarly attention (see e.g. Schafer, 2012; Schafer & Tuy, 2013), very little consideration has been given to the political action of grassroots actors and to their role in the co-shaping of computer networks, their politics, and their users (Trudel & Tréguer, 2016; Pétin & Tréguer, 2018). To help remedy these gaps, the paper first traces the evolution of FDN from early concern with Internet access and education to its involvement in the first campaigns to defend Internet users’ rights and early forms of digital activism, in the mid-1990s. The paper then turns to the many challenges faced by FDN in the new context of strong competition between commercial Internet providers, rapid technological changes, and more restrictive regulatory framework. Finally, the paper discusses the revival of FDN following the adoption of ADSL, in 2005, and the organizational and strategic change brought about by the creation of the *Fédération FDN* (FFDN), as exemplified by support given to WikiLeaks (2011) or the provision of VPN access to political dissidents during the Arab Spring (2011). In doing so, this paper simultaneously contributes to the development of a French national history of computer networks, to the ongoing diversification of the historiography of digital rights activism – one that has long been dominated by Anglo-Saxon perspectives (see Jordan & Taylor, 2004; Levy, 2001; Postigo, 2012) –, as well as to future

comparative research.

The Early History of the French Data Network

At the end of the 1970s, personal computers were finally coming to France. Magazines specialized in computer cultures reported at the time that more than 100,000 machines had been sold in France (Thierry, 2012, p. 55). In 1985, an official report claimed that 860,000 households possessed a desktop device. By the end of the decade, France would become the first European market for PCs, and over that period, the number of computer clubs also rose significantly. This rise of computer penetration and its growing use was facilitated by the government's voluntarist approach (Cats-Baril & Jelassi, 1994; Schafer & Thierry, 2012a). In 1978, when France was still lagging behind, the Nora-Minc report called on the coming together of computers and telephone networks and would launch the unique experience of the Minitel (Gonzalez & Jouve, 2002; Schafer & Thierry, 2012a; Driscoll & Mailland, 2017). First intended as a way of granting to the public access to databases, the Minitel would soon morph into a communication device and a large-scale social experiment that would lead to the creation of France's earliest virtual communities. At the end of the 1980s, a quarter of French residents had access to the Minitel. Though less popular, other computer networks were also accessible through dial-up connections, such as Calvacom, launched by Apple and the American College in Paris (Thierry, 2012).

All of these early experiences of popular computer culture, with their novices and "enlightened amateurs" (Schafer & Thierry, 2012b), formed the background against which the Internet would sweep the country. In the early 1990s, as the Cold War came to an end, the Internet was undergoing such a growth and increasing globalization that it would soon result in a historic democratization of communications (Gerich, 1992). At the same time, the Internet's political economy was turned upside down by a mounting wave of neoliberal commodification that opened telecom markets to competition (Jin, 2008; Pickard, 2007)

A non-profit association, the French Data Network was founded in 1992, before the onset of Internet "dinosaurs" such as Netscape (1993), Yahoo (1993), Internet Explorer (1994), and MSN (1994). FDN was the "crazy idea" of Christian Paulus, a 35 years-old computer scientist, and of a few Parisian computer enthusiasts, including Jean-Philippe Nicaise, Hubert Delahaye, and Arnaud Weber

(Nicaise, 2016). In February 1992, meeting over a diner, the small group of friends started to plan for a new service that would bypass existing French networks and connect directly to American servers using UUCP.¹ Then, the code names for the project were “Fou du Net” and “Fou Fou Net” (Nicaise, 2016). Paulus and his friends were mainly interested in the educational potential of the Internet and had very little experience with activism. At the time, they simply wanted to “open this emerging worldwide library to everybody” (Paulus, 2016, our translation). The association was considered a means to mutualize access costs, and in line with this principle of solidarity FDN offered discounted access for students and unemployed workers (Nicaise, 2016).

In May 1992, Paulus and his friends contacted the U.S.-based service provider UUNET and were able to join the UUCP and SMTP² crowd – thanks to the three NEXT computers (and their attached UUCP modems) located first in Nicaise’s apartment and later in Paulus’ living room, in Paris (Nicaise, 2016). The next month, on June 2, the French Data Network was formally created, with Paulus acting as the non-profit’s president, Arnaud Weber as vice-president, Jean-Philippe Nicaise as treasurer, and Hubert Delahaye as secretary. Within two years, about 400 members joined FDN, including about 25 non-profit and for-profit organizations who acted as proxy for their members (Nicaise, 2016). To communicate on UUCP and exchange emails on SMTP, they needed their own microcomputers equipped with a modem and loaded with a UUCP free software like FreeBSD or NetBSD (Jørgensen, 2001). Each of them paid an annual membership fee of 100 francs (15 euros) – or 10 francs for students – and a monthly flat-rate subscription of 180 francs (27 euros) with a generous data allowance. Among other services, FDN provided users with their own IP addresses and configurable email services, and ran file-sharing servers from which members could download a free open-source software to manage their modem and configure their connection. The FDN community contributed to that software by writing bits of code, and translated English technical documentation and tutorials to make them more accessible to a French audience. Paulus even got national visibility among French Internet pioneers by making a translation of the *Netiquette* – the set of social conventions used by first Internet users to regulate online interactions (Hambridge,

1 UUCP is an abbreviation of Unix-to-Unix Copy, a suite of computer programs and protocols first released in 1979 to allow for the remote execution of commands, file transfer email, and news bulletin between computers.

2 Simple Mail Transfer Protocol (SMTP) is an Internet standard for electronic mail transmission, first released in 1982.

1995). Overall, things were operating smoothly, revenues were much better than expected and did more than cover for the expenses.

Fdn
French Data Network

Association
régie par la loi
du 1^{er} juillet 1901,
inscrite à la
Préfecture de Paris
sous le n° 107563

Statuts de l'association

Article 1
Titre de l'Association
Il est fondé entre les adhérents aux présents statuts une Association régie par la loi du 1er juillet 1901 et le décret du 16 août 1901, ayant pour titre :
French Data Network
(Réseau Français de Données)

Article 2
But de l'association
L'Association a pour but :
La promotion, l'utilisation et le développement du réseau mondial USENET d'information électronique dans le respect de son éthique (utilisation à des fins de recherche et d'éducation sans volonté commerciale).

Pour la première année, le montant des cotisations est de :
Membre bienfaiteur : 15 000 F
Membre adhérent : définie par le règlement intérieur.
A ces cotisations est ajouté un droit d'entrée de 250 F.

Article 5
Admission
Pour faire partie de l'Association, il faut être agréé par le bureau qui statue, lors de chacune de ses réunions, sur les demandes d'admission présentées.
Un nouveau membre ne sera admis que pour un an, à compter de sa première inscription. Il pourra ensuite solliciter son admission définitive dans l'association.

par les textes législatifs ou réglementaires.

Article 8
Le Conseil d'Administration
L'Association est dirigée par un Conseil de quatre membres élus pour deux années par l'Assemblée Générale. Les membres sont rééligibles.
En cas de vacances, le Conseil pourvoit provisoirement au remplacement des membres.
Il est procédé à leur remplacement définitif par l'Assemblée Générale.
Les pouvoirs des membres ainsi élus prennent fin à la date à laquelle devrait normalement expirer le mandat des membres remplacés.

Snapshot of FDN's original by-laws (January 1993, personal archives of J-P Nicaise)

The next year, FDN teamed with RENATER, the newly-formed public national network for academic and research institutions (see Schafer & Tuy, 2013). In his professional capacity, Nicaise was invited to join, and realized that RENATER was offering to subsidize Internet connectivity. FDN reached out to RENATER later that year, emphasizing their educational focus and their special prices for students and job-seekers. Within a couple of months, RENATER happily gave FDN a special line of 64 kilobits/second to their data center open on the worldwide Internet, a router, a first batch of public IP addresses to connect their servers to the Net, as well as its *fdn.fr* domain name – all for a symbolic price. The team was ecstatic and, around March 1993, after some engineering work, the new infrastructure was up and running, still on UUCP. Later that year, FDN moved to from UUCP modem connection to IP connections and was able to offer real Internet access.

By that time, FDN was operating in – and trying to make sense of – a new ambiguous context. On the one hand, the Internet became increasingly

commodified, as e-commerce and online advertising developed rapidly. On the other hand, the mid-1990s witnessed the “renaissance” of social movements in France and the rise of Internet activism – that is the use of the Internet by social movements adopting what Stefania Milan (2013) calls “emancipatory communication practices” (see also Granjon & Torres, 2012). The Internet sparked a political movement of tech activists whose aim was “to bypass the politics of enclosure and control enacted by states and corporations” and to achieve “a structural reform at the grassroots level through the creation of autonomous spaces of communication” (Milan, 2013, p. 10).

FDN and the Rise of Digital Rights Activism in France

This new context coincided with a change in the leadership of FDN. By 1995, Paulus and his friends were replaced by a new generation at the head of FDN, as they moved to other adventures and were busy developing their careers in the booming tech sector (today, one of them works at France Télécom Orange while another works at Google). In March 1998, following a brief period during which Fabien Roy served as FDN president and Sam Przymas as interim president, FDN members elected a new young president named Benjamin Bayart, a computer scientist in his early 20s, ushering in a new, more political era in the history of FDN.

As the Internet got increasingly politicized, FDN members were loosely connected to early forms of Internet activism, for instance by joining the Freenix association (free software) or the worldwide Blue Ribbon campaign for online freedom of speech, which followed the adoption of the Communications Decency Act by the U.S. Congress in 1996 (Chemla & Bayart, 2016). Also in 1996, the French government initiated its first regulatory crackdown to boost its censorship and surveillance capabilities. In reaction, a handful of French Internet pioneers created the *Association des Utilisateurs d’Internet* (AUI), the first French organization aiming at defending the civil rights of Internet users (Chemla & Bayart, 2016; Pétin & Tréguer, 2018). A few months earlier, the *Réseau associatif et syndical* (R@S) was created in the aftermath of the social uprising of November and December 1995 against the pension reform proposed by the right-wing government of the time. R@S was a key actor of the early French Internet activism scene and was among the first to consider the Internet as a means to organize social movements (Sauterey, 2005; Granjon & Torres, 2012). R@S teamed with workers unions and local organizations

involved in the Global Justice Movement – the worldwide movement opposing neoliberal globalization and institutions like the World Trade Organization) or the International Monetary Fund –, providing them with secure e-mailing, free hosting services, as well as innovative web-publishing tools (Papatheodorou, 2005; Granjon & Torres, 2012). This led to interesting forms of cross-fertilization. On the one hand, these new links helped to politicize the techies. On the other, it also educated these older activist organizations about what the Internet’s radical-democratic potential and the possibility to exert bottom-up control over computer networks, in particular through free software (Coleman, 2005).

Looking back at Usenet archives, one can see that FDN is mentioned several times in the discussions of those involved in setting up the AUI and R@S (AUI, 1995). Not only FDN was, or had been, their Internet access provider, but for many, it was their most significant reference in terms of setting up and operating a non-profit (Tréguer & Trudel 2017).

The politicization of the Internet intensified further in the following months, in the aftermath of the so-called “Altern Affair” (Schafer, 2018; Pétin & Tréguer, 2018). Built by a young French programmer named Valentin Lacambre, *altern.org* was a free hosting service who faced numerous trials and was a key player in the French debate on “intermediary liability.” An appellate court decision eventually held Lacambre liable for the content published by Altern’s users, leading to the shutdown of the 47,000 websites hosted on the platform.

From that time onwards, FDN became increasingly entangled with the French and international emerging scene of Internet activism (Chemla & Bayart, 2016). For FDN’s active volunteers, a citizen-owned and run Internet providers seemed to be a natural avenue for resisting the trend towards commodification and political control over the new communication infrastructure (Bayart, 2016). Through the leading members of the emerging digital rights scene did not necessarily perceive FDN’s political potential, all shared the goal of equipping newcomers with the technical know-how and to cultivate an understanding of the Internet’s political importance, allowing for the emergence of a “critical Internet user” (Paloque-Bergès, 2015).

Maintaining Technological Relevance: A Condition for Political Action

Despite the increasing politicization of the Internet in the mid-1990s, FDN soon had more pressing challenges than taking a leading role in this early scene of

Internet rights activism. Indeed, the most pressing challenge was to maintain FDN's core activity, i.e. the provision of Internet access.

FDN faced the competition of about 20 mostly commercial Internet providers in France (see Rebillard, 2012). In a context of rapid privatization, regulation promoted both the unbundling of last-mile as well as facility-based competition, and new companies began laying down their own network infrastructure (Michalis & Ruhle, 2001). This, along with the explosion of mobile telephony and the democratization of Internet access, made liberalization look like a success story: innovation in telecom services was dynamic and fast paced, prices were low, and the number of Internet users surged.

At the time, it became increasingly difficult for FDN to keep pace and to compete with commercial providers such as Wanadoo, Free, and Club Internet. In 1996 alone, when the Internet made a first breakthrough in the general public, FDN lost 10% of its members to commercial providers. In 1997, an extraordinary general assembly put on the agenda a discussion about the very survival of the association (French Data Network, 1997). At the time, FDN also faced the consequences of the new European directives that opened telecom markets to competition and imposed new obligations for operators. To be registered as a lawful telecom player, FDN had to pay an annual fee of about 130,000 francs (20,000 euros) to the newly created national regulatory authority, the *Autorité de régulation des télécommunications*. The fee was designed for commercial players, and for FDN it was of the same order of magnitude as its revenues. To avoid this crushing financial burden, the organization thus declined to register and chose to remain under the radar (Bayart, 2016).

At approximately the same time, RENATER suddenly decided that FDN was actually operating a commercial service and dropped its support to the non-profit. FDN eventually switched from RENATER to Oléane, a business-to-business telecom operator who also provided batches of IP addresses, but on less advantageous financial terms. This led to changes in the association's bylaws, adopted in March 1998 on Bayart's recommendation. Article 2 of the bylaws now read: "The association aims to promote, use and develop Internet and Usenet networks in accordance with their ethics by promoting, in particular, the uses for research and educational purposes without commercial purpose" (French Data Network, 1998, p. 3, our translation). According to the meeting's minutes, the phrase "in particular" was particularly important, and ambiguous, in that it suggested "a less rigid

framework for the evolution of the French Data Network [...] clearly indicating our desire for openness towards the small structures such as craftsmen and small businesses” (French Data Network, 1998, p. 2, our translation).

In the mid-2000s, as connection speed significantly increased thanks to the deployment of ADSL technologies, the situation worsened. By that time, FDN had only 40 subscribers, all of them using their slow FDN access for very simple and old applications. The bulk of their Internet use relied on mainstream access providers.

From 1999 to 2007, FDN stayed off the grid. The association did not hold any general assembly during that period and its activities were less intensive as ever on the political front. The few remaining members were mostly preoccupied by the very survival of the association, as they faced a fiscal control and were trying to cope with commercial “high-speed” ADSL services. But those users who stayed with FDN were the most committed to its values and mission, and FDN became increasingly tied to the emerging digital rights movement, especially when the latter underwent a revival in the late-2000s. This revival coincided with the adoption of ADSL in 2005, a project undertaken by Bayart who had been working for a mainstream operator setting up their ADSL system (Bayart, 2016). After 18 months of doing some internal lobbying, of finding and talking to the right people, he managed to find someone in the business department of the company who was ready to make a special offering: the large telecom provider would lease parts of its network to FDN through what is called “bitstream offers.” Rather than having to deploy its own infrastructure in the last-mile networks, FDN could rely on that on this much bigger operator in exchange of a per-subscriber fee.

In 2005, the roll-out of ADSL service brought back FDN in the game, on the technical level as well as with membership. At 29 euros per month, the subscription fee was comparable to the service offered by commercial players, and FDN was recruiting new members (Sirjean, 2017).

The *Fédération FDN* and the Second Wave of Digital Right Activism

Having secured the future of the organization, Bayart also became more politically involved in the mid-2000s, addressing crowds of free software activists during public events. In one famous lecture that gathered much viewership online, Bayart described the Internet’s enclosure and growing centralization as a move towards a “Minitel 2.0” (Bayart, 2007). This lecture stroked a chord in an activist milieu that

was getting increasingly politicized. In 2008, Bayart also participated in the foundation of *La Quadrature du Net* (acting as the association's treasurer), a group that would come to occupy the political space that had been left vacant since the end of the *Association des Utilisateurs d'Internet* in 2002 and the withering of another similar organization, *Imaginons un Réseau Internet Solidaire* (Pétin & Tréguer, 2018).

In 2009, FDN was a vocal opponent to the French HADOPI law, which aimed at restricting peer-to-peer exchanges and disconnecting Internet users responsible for copyright infringements (Lausson, 2010). According to Benjamin Bayart (2009), the debate surrounding the HADOPI law contributed to politicizing a large number of "mainstream" Internet users for the very first time. It also paved the way for another central issue which would be on top of the agenda the following years: that of Net neutrality - a central concept according to which telecom providers should not prioritize or block specific content or applications online (Marsden, 2010; Wu, 2010).

FDN was thus very active in fighting online censorship. In 2010-2011, during the WikiLeaks Cablegate, FDN created a mirror site of WikiLeaks and helped to channel donations to Julian Assange's organization to circumvent the banking blockade it was subjected to (Agence France-Presse, 2010; Champeau, 2012). During the Arab Spring, the organization set up modems and shared telephone numbers to allow Egyptian protesters to connect to the Internet through dial-up connections during the Internet shutdown, also partnering with Reporters Without Borders to provide VPN services to political dissidents (Doucet, 2011; Luquin, 2011). All these actions attracted significant media coverage and helped publicize the role played by FDN in the debates surrounding digital rights.

This was the moment when Bayart, other FDN volunteers, and a handful of other French community networks went on to motivate people across France to join and start building their own community networks. Rather than growing a single organization, the choice was made to "swarm" in a decentralized mode by creating many local non-profit organizations. Soon, in the context of the growing ability of the digital rights movement to frame these issues at the political level, Bayart's advocacy in favor of non-profit Internet access providers contributed to the creation of more than a dozen new non-profit ISPs across France, including, among others, *Tetaneutral.net* (2010), *Lorraine Data Network* (2010), and *Sames Wireless* (2010). To coordinate these developments, share expertise and organize the legal and political representation of the movement, an umbrella of non-profit organizations

was also created: The *Fédération FDN* (FFDN), a “network of networks” now comprising about 30 community networks and 2500 member-subscribers. As a federation, FFDN and the various connected organizations were able to develop political and legal expertise within the existing political and legal institutions and to educate the public on various issues, such as surveillance – a rising theme in the post-Snowden context (see Alloing, 2016).

Conclusion

While still providing Internet access to many subscribers, FDN—and today FFDN—took a major turn towards political advocacy and remains a major player today in the field of Internet activism in France. FDN’s history suggests that community networks such as FDN represent a crucial site to understand the broader history of communication networks, their uses, and their politics. Our case study is one more indication of the central role of non-profit, alternative providers in popularizing access to the Internet in the early days of the technologies, when commercial offerings had yet to go mainstream. These alternative providers and services acted as a key resource in the evolution of the early-1990s “enlightened amateurs,” who sought to promote a “moral institution” of Internet newcomers through the *Netiquette* (Auray, 2012), to the more contemporary figure of the “critical Internet user,” actively engaging with lawmakers and other power-holders while being able to point to these pockets of resistance existing alongside dominant players (Paloque-Bergès, 2015; Pétin & Tréguer, 2018).

But the history of FDN also shows that, as De Filippi and Tréguer (2015) write, “[political] motives are not in and of themselves sufficient for the network to scale up beyond a restrained community of highly engaged individuals with strong ideological values” (p. 18). In order to survive and grow, “community networks must also provide a service that is considered at least as good and preferably better than that of mainstream ISPs” (p. 18). In the case of FDN, the adoption of ADSL technology in 2005 was certainly a turning point that allowed the survival of the association and the continuation of its political commitments.

Finally, this case study also bears interesting lessons for contemporary community networks. It suggests that it is possible to successfully combine a “counter-hegemonic” critique of telecommunications and an “expressivist” critique aiming at using the emancipatory potential of new media to empower local

communities. In this respect, community networks can serve as a strategic locus for reinterpreting both ends of traditional “mediactivism” (Cardon & Granjon, 2013): the critique that aims to empower individuals and collectives to disseminate their own voices and find way to meet their specific communicational needs by mastering the roll-out of alternative networks, and the counter-hegemonic critique that tackles structural issues, using these alternative networks as a symbolic resource to ward off the forms of domination and collusion that divert telecommunications and media policies from the public interest.

If the history of the Internet remains largely to be written, it is all the more true for the history of community networks such as FDN and of the broader history of Internet rights activism. We hope that this article can provide a useful contribution for future comparative research that embraces the diversity of technological, political and national contexts.

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